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Preclinical evidence of Malay traditional herbal supplement for diabetes

(Conference Paper)

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Abstract

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In this report, one herbal folk recipe traditional claim for diabetes treatment, jamu KM is subjected to scientific studies. The exposure of traditional diabetes decoction, KM extract to 3T3-L1 at 1 mg mL^{-1} shows significant increase in glucose uptake with no LD_{50} value. 150 µg mL^{-1} methanolic extract of Jamu KM yield intense lipid droplet accumulation in non-insulin induced adipocytes 3T3-L1. Further investigation through in vivo study of KM extract using diabetic Spraque Dawley rats indicates reduction in blood glucose at the concentration of 0.05 g kg^{-1} body weight (bwt). A similar response was observed with the treatment using glibenclamide at 0.006 g kg^{-1} bwt. Histopathological data show increase in the relative organ weight (g 100 g^{-1} bwt) of liver and kidney of all diabetic rats as compared to normal group while pancreas was not affected. However, glibenclamide treated group shows 14 and 15% larger liver and kidney, respectively, than the other diabetic groups and jamu KM treated. This finding is a promising approach in validation of herbal medication from the past wisdom through modern techniques.

Author keywords

Diabetes Jamu KM Malay Preclinical Validation

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